

Fiche d'entraînement : primitives

Déterminer, dans chaque cas, une primitive des fonctions proposées :

Solutions

1) $f_1(x) = x^3 - 2x^2 + 5x - 2$

2) $f_2(x) = 2x^5 - 4x^3 + \frac{2}{3}x^2 - 8x + 7$

3) $f_3(x) = 4x^4 - 2x^3 + \frac{4}{5}x^2 - 4x - 10$

4) $f_4(x) = \frac{-2}{(2x+5)^2}$

5) $f_5(x) = \frac{8}{(-4x+1)^2}$

6) $f_6(x) = \frac{4}{(3x+7)^2}$

7) $f_7(x) = \frac{1}{(5x+4)^2}$

8) $f_8(x) = \frac{x^2 - 5}{x^2}$

9) $f_9(x) = \frac{x^3 + 5x - 1}{x^3}$

10) $f_{10}(x) = x^{-4}$

11) $f_{11}(x) = x^{-6}$

12) $f_{12}(x) = x^{-4} - 2x^{-3} + 5x - 1$

13) $f_{13}(x) = \frac{2x}{\sqrt{x^2+5}}$

14) $f_{14}(x) = \frac{5x}{\sqrt{2x^2+9}}$

15) $f_{15}(x) = \frac{2x^2 - 4}{3\sqrt{x^3 - 6x}}$

1) $F_1(x) = \frac{1}{4}x^4 - \frac{2}{3}x^3 + \frac{5}{2}x^2 - 2x$

2) $F_2(x) = \frac{1}{3}x^6 - x^4 + \frac{2}{9}x^3 - 4x^2 + 7x$

3) $F_3(x) = \frac{4}{5}x^5 - \frac{1}{2}x^4 + \frac{4}{15}x^3 - 2x^2 - 10x$

4) $F_4(x) = \frac{1}{2x+5}$

5) $F_5(x) = \frac{2}{-4x+1}$

6) $F_6(x) = \frac{-4}{3(3x+7)}$

7) $F_7(x) = \frac{-1}{5(5x+4)}$

8) $F_8(x) = x + \frac{5}{x}$

9) $F_9(x) = x - \frac{5}{x} + \frac{1}{2x^2}$

10) $F_{10}(x) = \frac{-1}{3x^3}$

11) $F_{11}(x) = \frac{-1}{5x^5}$

12) $F_{12}(x) = \frac{-1}{3x^3} + \frac{1}{x^2} + \frac{5}{2}x^2 - x$

13) $F_{13}(x) = 2\sqrt{x^2+5}$

14) $F_{14}(x) = \frac{5\sqrt{2x^2+9}}{2}$

15) $F_{15}(x) = \frac{4\sqrt{x^3-6x}}{9}$